

Abstract of the Disclosure

**[0041]** An apparatus and method for detecting fault conditions in an input AC power signal. A three phase supervisory circuit is used to detect the fault conditions and comprises first, second and third sensing circuits for detecting a voltage level for respective phases of the AC power signal. The three phase supervisory circuit compares the voltage levels to a threshold value. A delay circuit delays operation of the sensing circuits for a predetermined period of time. An activation circuit for receiving indication signals from the sensing and delay circuits is also used. The indication signals are indicative of whether the predetermined period of time has elapsed and the three voltage levels of the three phases have met the threshold value.